Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

A280.39
M34Am
Cop. 2

AMS-66
(Supplement No. 1)

September 1955

LIBRARY
CURRENT SERIAL RECORD
★ OCT 19 1955 ★
U. S. DEPARTMENT OF AGRICULTURE

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Cotton Division

FIBER AND SPINNING TEST RESULTS FOR SOME VARIETIES OF COTTON GROWN BY SELECTED COTTON IMPROVEMENT GROUPS, CROP OF 1955 [1]

Results of fiber and spinning tests of some of the earlier harvested cottons grown commercially in 1955 by selected cotton improvement groups were presented in an initial report issued in August 1955. [2] This supplement contains results for cottons that have been harvested and tested since publication of the earlier report. Some of the cottons for which test data are presented here are from the same areas represented in the earlier report, but they were harvested at a later date. For a given variety produced in the same area, there are, naturally, differences between cotton harvested in the early season and that harvested later in the season. Additional supplemental reports will be issued as the harvesting season progresses throughout the Cotton Belt.

The criteria for selection of areas and samples and for evaluating test data are essentially the same as for former years, and, together with the manufacturing organization and some of the more important settings used for processing, have been described in previous publications. [3]

The spinning lots represent commercially grown cotton of even-running grade and staple from many bales of the specified varieties. Qualities other than those included in this report are, of course, available in each of the market areas listed as a result of normal seasonal and soil variations.

Processing results for the 1955 crop cottons will be based, as in previous years, on four different rates of carding. The cottons reported on in this supplement were processed in accordance with the organization for Group 2 (card production rate of 9-1/2 pounds per hour). The test results are reported in table 1. No data are available at this time for Groups 1, 3, and 4, but test results for such cottons will be reported in later supplements.

---

[1] Prepared in the Standards and Testing Branch.

[2] Fiber and Spinning Test Results for Some Varieties of Cotton Grown by Selected Cotton Improvement Groups, Crop of 1955.

[3] Summary of Fiber and Spinning Test Results for Some Varieties of Cotton Grown by Selected Cotton Improvement Groups. Crop of 1954.

Table 1.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955

Test item	Results for specified variety, state, market area, and period of harvest				
	Coker 100W	Deltapine 15			
	Georgia	Texas			
	Arlington	Calvert	Brownsville		Lyford
	Early	Early	Midseason	Late	Midseason
Raw Cotton Quality					
Grade (official standards)	M	Mltsp	SLM+	LM	SLM
Staple length------------inches	1-1/32	31/32	1-1/32	1-1/16	1-1/32
Fiber length (Fibrograph):					
Upper half mean---------inches	1.05	.97	1.04	1.03	1.00
Uniformity ratio------percent	82	81	81	81	80
Fiber fineness---------ug./in. 1/	4.6	3.6	4.0	3.9	4.4
Fiber maturity---------index 1/	81	76	78	79	77
Fiber tensile strength: 2/					
Index----------(1/8" gauge) 3/	102	101	98	98	98
1,000 p.s.i.---------(0 gauge)	79	87	81	79	79
Nonlint content---------percent	3.7	3.4	3.0	3.6	3.6
Color of cleaned lint (Rd/b) 4/	74.5/9.0	73.5/10.2	76.5/8.3	76.0/8.3	73.0/8.8
Sugar content-----------percent	0.1	0.2	0.0	0.0	0.1
Processing Results					
Picker and card waste---percent	8.3	9.8	8.5	10.2	9.3
Neps per 100 sq. in. of card web	19	12	10	12	10
Yarn skein strength:					
22s-------------------pounds	111	106	114	115	107
50s-------------------pounds	39	35	40	38	36
Average break factor	2194	2041	2254	2215	2077
Yarn appearance:					
22s---------------------grade	B	B	B+	B	B
50s---------------------grade	C+	C	B	C	C+
Average index	105	100	115	100	105

Continued on page 3

Table 1.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955 - continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Deltapine 15				
	Texas				
	Lyford	Navasota	Port Lavaca		Sugarland
	Late	Early	Early	Midseason	Early
Raw Cotton Quality					
Grade (official standards)	LM	M	SM	M	M+
Staple length--------------inches	1-1/32	1	1-1/16	1-1/32	1-1/16
Fiber length (Fibrograph):					
Upper half mean----------inches	1.03	.97	1.06	.99	1.01
Uniformity ratio--------percent	80	79	80	81	81
Fiber Fineness----------ug./in. 1/	4.1	4.2	3.9	3.7	4.6
Fiber maturity-----------index 1/	79	80	78	81	84
Fiber tensile strength: 2/					
Index----------(1/8" gauge) 3/	96	104	109	103	102
1,000 p.s.i.---------(0 gauge)	79	86	83	80	81
Nonlint content-----------percent	5.6	2.4	2.1	3.0	2.2
Color of cleaned lint (R_d/b) 4/	72.5/8.7	76.0/9.6	77.0/9.0	78.0/8.8	77.5/9.0
Sugar content-------------percent	0.0	0.1	0.1	0.2	0.0
Processing Results					
Picker and card waste-----percent	11.8	8.4	8.0	9.4	7.2
Neps per 100 sq. in. of card web	14	6	8	12	4
Yarn skein strength:					
22s---------------------pounds	104	118	122	114	119
50s---------------------pounds	34	40	43	38	40
Average break factor	1994	2298	2417	2204	2309
Yarn appearance:					
22s----------------------grade	B	B+	B	B	B+
50s----------------------grade	C	C+	C+	C+	B
Average index	100	110	105	105	115

Continued on page 4

Table 1.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955---Continued

Test item	Results for specified variety, state, market area, and period of harvest				
	Deltapine (TPSA)				
	Texas				
	Danevang	Edcouch		Weslaco	
	Early	Midseason	Late	Midseason	Late
Raw Cotton Quality					
Grade (official standards)	M	SLM+	M	M	M
Staple length--------------inches	1-1/16	1-1/32	1-1/32	1-1/32	1-1/32
Fiber length (Fibrograph):					
Upper half mean----------inches	1.04	1.01	1.02	1.02	1.03
Uniformity ratio--------percent	80	80	80	80	80
Fiber fineness----------ug./in. 1/	4.2	4.3	4.4	4.2	4.2
Fiber maturity----------index 1/	82	79	83	79	81
Fiber tensile strength: 2/					
Index-----------(1/8" gauge) 3/	101	100	99	98	97
1,000 p.s.i.----------(0 gauge)	80	79	77	77	78
Nonlint content----------percent	2.4	3.3	2.4	2.5	2.9
Color of cleaned lint (Rd/b) 4/	77.5/8.8	76.0/8.6	76.6/8.7	77.5/8.8	78.8/8.5
Sugar content------------percent	0.1	0.1	0.1	0.3	0.1
Processing Results					
Picker and card waste----percent	8.0	8.6	8.4	8.2	8.2
Neps per 100 sq. in. of card web	6	9	7	8	6
Yarn skein strength:					
22s---------------------pounds	117	112	112	112	112
50s---------------------pounds	41	40	38	39	38
Average break factor	2312	2232	2182	2207	2182
Yarn appearance:					
22s----------------------grade	B+	B+	B+	B+	B
50s----------------------grade	B	B	C+	C+	C
Average index	115	115	110	110	100

Continued on page 5

Table 1.--Results of classification, fiber tests, and carded yarn processing tests for specified varieties of cotton grown in designated market areas, processed at a card production rate of 9-1/2 pounds per hour, crop of 1955--Continued

Test item	Results for specified variety, state, market area, and period of harvest			
	Delfos 9169		Lankart 57	
	Texas			
	Corpus Christi		Taft	
	Midseason	Late	Midseason	Late
Raw Cotton Quality				
Grade (official standards)	M	SM	M	M
Staple length--------------inches	1-1/32	1	1	15/16
Fiber length (Fibrograph):				
Upper half mean----------inches	1.01	.93	.94	.92
Uniformity ratio--------percent	80	81	81	80
Fiber fineness----------ug./in.[1]	4.0	4.0	4.0	4.2
Fiber maturity-----------index [1]	75	75	76	80
Fiber tensile strength: [2]				
Index------------(1/8" gauge)[3]	93	95	95	95
1,000 p.s.i.----------(0 gauge)	82	81	77	78
Nonlint content------------percent	2.3	2.3	3.1	3.9
Color of cleaned lint (R_d/b) [4]	75.5/8.8	78.0/8.6	75.5/9.1	76.5/9.0
Sugar content------------percent	0.1	0.0	0.2	0.2
Processing Results				
Picker and card waste----percent	9.5	8.7	9.7	9.3
Neps per 100 sq. in. of card web	7	13	10	9
Yarn skein strength:				
22s---------------------pounds	107	100	109	105
50s---------------------pounds	37	34	37	35
Average break factor	2102	1950	2124	2030
Yarn appearance:				
22s----------------------grade	B+	B	B+	B
50s----------------------grade	C+	C+	C+	C
Average index	110	105	110	100

---

[1] Determined by the Causticaire method using the Micronaire instrument.

[2] Determined by Pressley instrument.

[3] Index of 100 equals average strength of 1954 commercial crop of Upland cotton.

[4] Determined by Nickerson-Hunter Colorimeter on lint cleaned by Shirley analyzer.